the safety, sanitary, and factory inspection laws of a State in which the work, or part thereof, is performed will be considered prima facie evidence of compliance with the safety and health requirements of the Act and of any contract subject thereto, and it shall be sufficient unless rebutted or overcome by a preponderance of evidence of a failure to comply with any applicable safety and health rules contained in this part.

(2) Every investigator shall have technical competence in safety, industrial hygiene, or both as may be appropriate, in the matters under investigation.

(c) [Reserved]

(d) The standards expressed in this part 50–204 are for application to ordinary employment situations; compliance with them shall not relieve anyone from the obligation to provide protection for the health and safety of his employees in unusual employment situations. Neither do such standards purport to describe all of the working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees. Where such other working conditions may be found to be unsanitary or hazardous or dangerous to the health and safety of employees, professionally accepted safety and health practices will be used.

(e) Compliance with the standards expressed in this part 50–204 is not intended, and shall not be deemed to relieve anyone from any other obligation he may have to protect the health and safety of his employees, arising from sources other than the Walsh-Healey Public Contracts Act, such as State, local law or collective bargaining agreement.

[34 FR 7946, May 20, 1969, as amended at 36 FR 9868, May 29, 1971]

### §50–204.1a Variances.

(a) Variances from standards in this part may be granted in the same circumstances in which variances may be granted under sections 6(b)(6)(A) or 6(d) of the Williams-Steiger Occupational Safety and Health Act of 1970 (29 U.S.C. 655). The procedures for the granting of variances and for related relief under this part are those published in part 1905 of title 29, Code of Federal Regulations.

(b) Any requests for variances shall also be considered requests for variances under the Williams-Steiger Occupational Safety and Health Act of 1970, and any variance from a standard which is contained in this part and which is incorporated in part 1910 of title 29, Code of Federal Regulations, shall be deemed a variance from the standard under both the Walsh-Healey Public Contracts Act and the Williams-Steiger Occupational Safety and Health Act of 1970. In accordance with the requirements of §1954.3(d)(1)(i) of title 29, Code of Federal Regulations, variance actions taken under State provisions under a State occupational safety and health plan approved under section 18 of the Occupational Safety and Health Act of 1970 with regard to State standards found to be at least as effective as the comparable Federal standards contained in this part and incorporated in part 1910 of title 29, Code of Federal Regulations, shall be deemed a variance action from the standard under both the Walsh-Healey Public Contracts Act and the Occupational Safety and Health Act of 1970.

[36 FR 9868, May 29, 1971, as amended at 40 FR 25452, June 16, 1975]

## Subpart B—General Safety and Health Standards

### §50–204.2 General safety and health standards.

(a) Every contractor shall protect the safety and health of his employees by complying with the standards described in the subparagraphs of this paragraph whenever a standard deals with an occupational safety or health subject or issue involved in the performance of the contract.

(1) U.S. Department of Labor—Title 29 CFR—

Part 1501—Safety and Health Regulations for Ship Repairing.
Part 1502—Safety and Health Regulations for Shipbuilding.
Part 1503—Safety and Health Regulations for Shipbreaking.
Part 1504—Safety and Health Regulations for Longshoring.
Part 1910—Subpart C through Subpart S (national consensus standards).

(2) U.S. Department of Interior, Bureau of Mines.

(i) In Chapter I of Title 30, Code of Federal Regulations, the standards requiring safe and healthful working conditions or surroundings in:

Subchapter B—Respiratory Protective Apparatus; Tests for Permissibility; Fees.
Subchapter C—Explosives and Related Articles; Tests for Permissibility and Suitability.
Subchapter D—Electrical Equipment, Lamps, Methane Detectors; Tests for Permissibility; Fees.
Subchapter O—Coal Mine Health and Safety.

(ii) In Chapter II of Title 30 the standards requiring safe and healthful working conditions or surroundings in:

Part 211—Coal-Mining Operating and Safety Regulations.
Part 216—Operating and Safety Regulations Governing the Mining of Coal in Alaska.
Part 221—Oil and Gas Operating Regulations.
Part 231—Operating and Safety Regulations Governing the Mining of Potash; Oil Shale, Sodium, and Phosphate; Sulphur; and Gold, Silver, or Quicksilver; and Other Nonmetallic Minerals, Including Silica Sand.

(3) U.S. Department of Transportation: 49 CFR parts 171–179 and 14 CFR part 103 Hazardous material regulation—Transportation of compressed gases.

(4) U.S. Department of Agriculture Respiratory Devices for Protection against Certain Pesticides—ARS–33–76–2.

(b) Information concerning the applicability of the standards prescribed in paragraph (a) of this section may be obtained from the following offices:

(1) Office of the Bureau of Labor Standards, U.S. Department of Labor, Railway Labor Building, Washington, DC 20210.

(2) The regional and field offices of the Bureau of Labor Standards which are listed in the U.S. Government Organization Manual, 1970–71 edition at p. 324.

(c) In applying the safety and health standards referred to in paragraph (a) of this section the Secretary may add to, strengthen or otherwise modify any standards whenever he considers that the standards do not adequately protect the safety and health of employees as required by the Walsh-Healey Public Contracts Act.

[34 FR 7946, May 20, 1969, as amended at 36 FR 9868, May 29, 1971]

### § 50–204.3 Material handling and storage.

(a) Where mechanical handling equipment is used, sufficient safe clearances shall be allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard. Permanent aisles and passageways shall be appropriately marked.

(b) Storage of material shall not create a hazard. Bags, containers, bundles, etc. stored in tiers shall be stacked, blocked, interlocked and limited in height so that they are stable and secure against sliding or collapse.

(c) Storage areas shall be kept free from accumulation of materials that constitute hazards from tripping, fire, explosion, or pest harborage. Vegetation control will be exercised when necessary.

(d) Proper drainage shall be provided.

(e) Clearance signs to warn of clearance limits shall be provided.

(f) Derail and/or bumper blocks shall be provided on spur railroad tracks where a rolling car could contact other cars being worked, enter a building, work or traffic area.

(g) Covers and/or guard rails shall be provided to protect personnel from the hazards of open pits, tanks, vats, ditches, etc.

[34 FR 7946, May 20, 1969; 35 FR 1015, Jan. 24, 1970]

### § 50–204.4 Tools and equipment.

Each employer shall be responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees.

### § 50–204.5 Machine guarding.

(a) One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, in going nip points, rotating parts, flying

chips and sparks. Examples of guarding methods are—Barrier guards, two hand tripping devices, electronic safety devices, etc.

(b) General requirements for machine guards. Guards shall be affixed to the machine where possible and secured elsewhere if for any reason attachment to the machine is not possible. The guard shall be such that it does not offer an accident hazard in itself.

(c) Point of Operation Guarding.

(1) Point of operation is the area on a machine where work is actually performed upon the material being processed.

(2) Where existing standards prepared by organizations listed in §50–204.2 provide for point of operation guarding such standards shall prevail. Other types of machines for which there are no specific standards, and the operation exposes an employee to injury, the point of operation shall be guarded. The guarding device shall be so designed and constructed so as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

(3) Special hand tools for placing and removing material shall be such as to permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall not be in lieu of other guarding required by this section, but can only be used to supplement protection provided.

(4) The following are some of the machines which usually require point of operation guarding:

Guillotine cutters.
Shears.
Alligator shears.
Power presses.
Milling machines.
Power saws.
Jointers.
Portable power tools.
Forming rolls and calenders.

(d) Revolving drums, barrels and containers shall be guarded by an enclosure which is interlocked with the drive mechanism, so that the barrel, drum or container cannot revolve unless the guard enclosure is in place.

(e) When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than one half (½) inch.

(f) Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

### §50–204.6 Medical services and first aid.

(a) The employer shall ensure the ready availability of medical personnel for advice and consultation on matters of plant health.

(b) In the absence of an infirmary, clinic or hospital in near proximity to the work place which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. First aid supplies approved by the consulting physician shall be readily available.

(c) Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

[34 FR 7946, May 20, 1969; 35 FR 1015, Jan. 24, 1970]

### §50–204.7 Personal protective equipment.

Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in function of any part of the body through absorption, inhalation or physical contact. Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance and sanitation of such equipment. All personal protective equipment shall be of safe design and construction for the work to be performed.

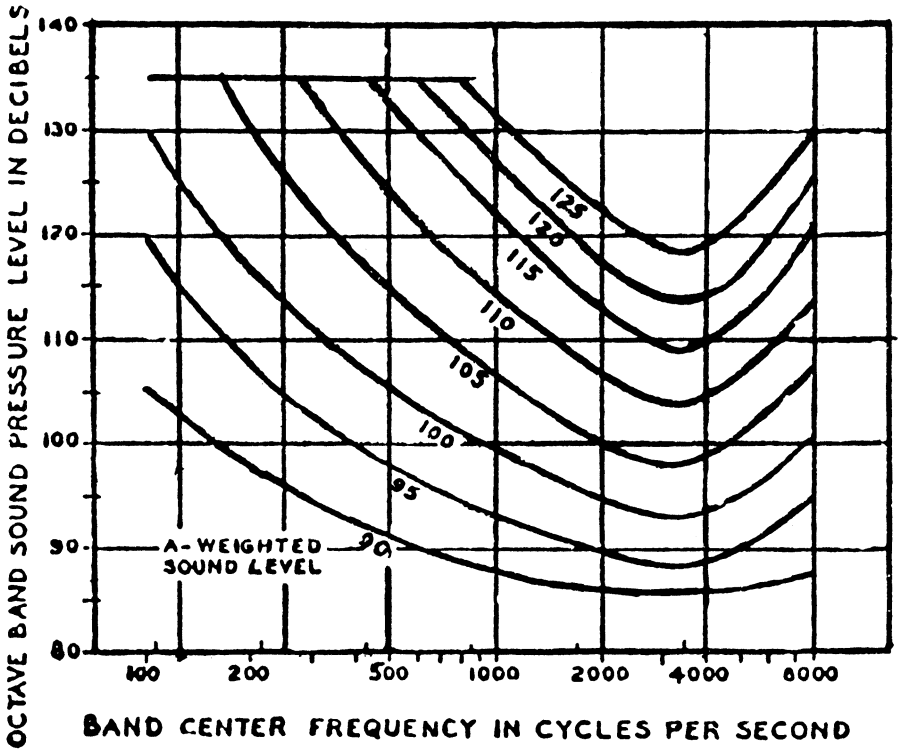
[35 FR 1015, Jan. 24, 1970]

**§ 50–204.8 Use of compressed air.**

Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment.

**§ 50–204.10 Occupational noise exposure.**

(a) Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in Table I of this section when measured on the A scale of a standard sound level meter at slow response. When noise levels are determined by octave band analysis, the equivalent A-weighted sound level may be determined as follows:




Equivalent sound level contours. Octave band sound pressure levels may be converted to the equivalent A-weighted sound level by plotting them on this graph and noting the A-weighted sound level corresponding to the point of highest penetration into the sound level contours. This equivalent A-weighted sound level, which may differ from the actual A-weighted sound level of the noise, is used to determine exposure limits from Table I.

(b) When employees are subject to sound exceeding those listed in Table I of this section, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of the table, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.

(c) If the variations in noise level involve maxima at intervals of 1 second

or less, it is to be considered continuous.

(d) In all cases where the sound levels exceed the values shown herein, a continuing, effective hearing conservation program shall be administered.

TABLE I

PERMISSIBLE NOISE EXPOSURES [1]

| Duration per day, hours | Sound level dBA slow response |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ or less | 115 |

[1] When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions: C1/T1+C2/T2 * * * Cn/Tn exceeds unity, then, the mixed exposure should be considered to exceed the limit value. Cn indicates the total time of exposure at a specified noise level, and Tn indicates the total time of exposure permitted at that level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

[34 FR 7946, May 20, 1969, as amended at 35 FR 1015, Jan. 24, 1970]

## Subpart C—Radiation Standards

### § 50–204.20 Radiation—definitions.

As used in this subpart:

(a) *Radiation* includes alpha rays, beta rays, gamma rays, X-rays, neutrons, high-speed electrons, high-speed protons, and other atomic particles; but such term does not include sound or radio waves, or visible light, or infrared or ultraviolet light.

(b) *Radioactive material* means any material which emits, by spontaneous nuclear disintegration, corpuscular or electromagnetic emanations.

(c) *Restricted area* means any area access to which is controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials.

(d) *Unrestricted area* means any area access to which is not controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials.

(e) *Dose* means the quantity of ionizing radiation absorbed, per unit of mass, by the body or by any portion of the body. When the provisions in this subpart specify a dose during a period of time, the dose is the total quantity of radiation absorbed, per unit of mass, by the body or by any portion of the body during such period of time. Several different units of dose are in current use. Definitions of units used in this subpart are set forth in paragraphs (f) and (g) of this section.

(f) *Rad* means a measure of the dose of any ionizing radiation to body tissues in terms of the energy absorbed per unit of mass of the tissue. One rad is the dose corresponding to the absorption of 100 ergs per gram of tissue (1 millirad (mrad)=0.001 rad).

(g) *Rem* means a measure of the dose of any ionizing radiation to body tissue in terms of its estimated biological effect relative to a dose of 1 roentgen (r) of X-rays (1 millirem (mrem)=0.001 rem). The relation of the rem to other dose units depends upon the biological effect under consideration and upon the conditions for irradiation. Each of the following is considered to be equivalent to a dose of 1 rem:

(1) A dose of 1 rad due to X- or gamma radiation;

(2) A dose of 1 rad due to X-, gamma, or beta radiation;

(3) A dose of 0.1 rad due to neutrons or high energy protons;

(4) A dose of 0.05 rad due to particles heavier than protons and with sufficient energy to reach the lens of the eye;

(5) If it is more convenient to measure the neutron flux, or equivalent, than to determine the neutron dose in rads, as provided in paragraph (g)(3) of this section, 1 rem of neutron radiation may, for purposes of the provisions in this subpart be assumed to be equivalent to 14 million neutrons per square centimeter incident upon the body; or, if there is sufficient information to estimate with reasonable accuracy the approximate distribution in energy of the neutrons, the incident number of neutrons per square centimeter equivalent to 1 rem may be estimated from the following table: